

Expanded Capacity Range of Motors Supported by the FR-E700EX Series Sensorless Servo Drive Units

Thank you for your continued patronage of Mitsubishi Electric drive control products.
A wider range of motors will be supported by the FR-E700EX series sensorless servo drive units.

1. Products Affected

FR-E700EX series drive units

2. Details of the Change

1.5kW and 2.2kW EM-A motors will be supported.

<Motor specifications>

Motor model	EM-AMF(B)(K)(W)□kW	1.5	2.2
Compatible drive unit*1	FR-E720EX-□K	1.5	2.2
Power supply capacity (kVA)*2		4.0	5.5
Rated rotation speed (r/min)		3000	
Maximum rotation speed (r/min)		4000	
Number of poles		6 poles	
Rated current (A)		6.1	9.3
Rated torque (N·m)*3		4.78	7.00
Maximum torque (%)		200%	
Thermal class		130 (B)	155 (F)
Structure		Totally enclosed naturally cooled	
Protective structure		IP44*4, IP65*4*5	
Environment*6	Surrounding air temperature / ambient humidity	0°C to +40°C (non-freezing), 90%RH or less (non-condensing)	
	Altitude	Maximum 1000 m	
	Vibration resistance*7	4.9m/s ² for continuous operation, 9.8m/s ² for instantaneous operation	
Permissible load on the shaft*8	L(mm)	30	30
	Radial (N)	686	
	Thrust (N)	490	
Mass (kg)	Without brake	9.5	11.7
	With brake	12.2	14.4

*1 By setting Pr.982, the drive unit with one rank higher capacity can be used.

*2 The power supply capacity varies with the value of the power supply side impedance (including those of the input reactor and cables).

*3 Applicable when the rated AC voltage is input from the drive unit.

Output and the rated motor speed are not guaranteed when the power supply voltage drops.

*4 Except for the shaft through hole.

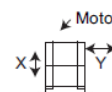


*5 Applicable to EM-AMF□□W motors.

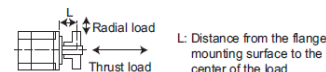
*6 The standard motor may not be used under the condition where it is constantly exposed to oil mist, oil, or water. For the details, please contact your sales representative.

*7 For the vibration direction, X indicates the direction of the motor output axis and Y indicates the direction perpendicular to the motor output axis.

The values are at points where the maximum values are indicated (normally the bracket at the non-load side). Bearings are subjected to fretting while the motor is stopped. Suppress the vibration to about the half of the permissible value.



*8 For the permissible load on the shaft, refer to the following figure. On the shaft, do not apply a load exceeding the value in the table. Each value in the table shows the permissible value for the single load application.



3. Date of Change

The change will be sequentially applied to the products manufactured in September 2019 or later.

Date of issue	August 2019	Title	Expanded Capacity Range of Motors Supported by the FR-E700EX Series Sensorless Servo Drive Units	Mitsubishi Electric Corp., Nagoya Works 5-1-14 Yada-minami, Higashi-ku, Nagoya 461-8670 Tel.: +81 (52) 721-2111 Main line

4. Product Identification

The products after the change will have the following SERIAL or later on their rating plates.

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Symbol Year Month Control number

SERIAL

The SERIAL consists of one symbol, two characters indicating the production year and month, and six characters indicating the control number.

The last digit of the production year is indicated as the Year, and the Month is indicated by 1 to 9, X (October), Y (November), or Z (December).